

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

A002324078

FACILITY: OTSEGO PAPER INC		SRN / ID: A0023
LOCATION: 320 N Farmer St., OTSEGO		DISTRICT: Kalamazoo
CITY: OTSEGO		COUNTY: ALLEGAN
CONTACT: Gary Roys , Environmental Compliance Supervisor		ACTIVITY DATE: 01/09/2014
STAFF: Dale Turton	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT:		
RESOLVED COMPLAINTS:		

An inspection was conducted for the entire paper mill facility on January 9, 2014 and a stack test was performed on turbine1 December 17, 2013.

The current ROP for Otsego Paper is MI-ROP-A0023-20013.

The mill produces the paper that will be attached to drywall board (gypsum board). A power plant associated with the mill has two turbines and a package boiler.

EUPAPERMACHINE1

The paper machine "Big Mo" was operating in December during the stack test. It was shut down during the January visit due to a snowstorm causing an interruption in waste paper deliveries. This triple Fourdrinier former machine produces a three ply sheet. The top ply uses clean white recycled magazine stock and the middle and bottom plies use other recycled paper or corrugated. Separate pulping, cleaning and refining equipment are used to prepare the two types of furnish.

Various chemicals are used on the machine such as retention aids, size, felt washes and cleaners, and wire cleaners. The listing of these chemicals, and their composition, are all kept in a spreadsheet and in MSDS form. Records of usage rates of materials, the hours of operation for the machine, and emission calculations are all kept in a spreadsheet. The calculated rolling 12-month emission rate is currently at about 21 tons per year whereas the permit limit is 110 tons per year. The monthly average pounds per day VOC has been less than 200, whereas the permit limit is 606 pounds per day. They use the same or similar Nalco Chemicals that were in the original 2007 permit to install application.

The dry end is exhausted through the large and tall super stack, and the wet end is exhausted through several smaller and shorter stacks. Staff did not take any measurements of stacks during this inspection to verify compliance with the ht. and dia. restrictions in the permit.

EUTURBINE1 & EUDUCTBURNER1

This is the north unit. The turbine exhaust feeds into the duct burner, and then the combined exhaust goes to SV005. This combined unit has just recently been put back into service after a few years of not being run.

This is currently subject to the CAIR NOx Budget Permit, which is incorporated into the ROP. The company is submitting the reports to EPA as required by the NOx permit.

Pipeline natural gas is being burned, and the sulfur is less than 0.8% by weight as required in the permit.

The NOx CEMS was being operated for information only since December is not during the ozone season. The NOx emissions were holding steady at about 0.07 #/MMBtu throughout the day.

CO and VOC emission calculations will be done using the data gathered from the 12/17/2013 stack test for this turbine and duct burner.

Both the turbine and the turbine with the duct burner were tested for CO and VOC on 12/17/2013. According to the test plan, the turbine only was operating for the first test. Then for the second test the duct burner was started and the combined exhaust was tested.

NTH performed the testing. Nathan Hude from AQD monitored the testing firm. The company recorded the turbine operating conditions every 10 minutes throughout the day. In addition, the total natural gas during each test run was calculated from the meter.

Run #1 was voided for CO due to the drift being too high after the run.

Run #2 started at 11:14am. Turbine operating conditions during the run:

Load	10,530 Kw
Steam	42 KPPH
Natural Gas	114 MSCFH
T5 turbine temp	1361 deg F
NOx (CEMS)	0.07 #/MMBTU

Run #3 started at 12:58pm. Turbine operating conditions during the run:

Load	10,542 Kw
Steam	42 KPPH
Natural Gas	114 MSCFH
T5 turbine temp	1360 deg F
NOx (CEMS)	0.07 #/MMBTU

Run #4 started at 4:07pm. Turbine operating conditions during the run:

Load	10,400 Kw
Steam	42 KPPH
Natural Gas	113 MSCFH
T5 turbine temp	1360 deg F
NOx (CEMS)	0.07 #/MMBTU

Due to the voided run #1 and an icing problem in the moisture line between run 3 and 4, the turbine only test was not completed until after 5:00pm. The second test on the turbine and duct burner in series did not start until after AQD staff left the site. A call from the company the next morning informed us that this run was completed during the evening. Results have not yet been submitted for either test.

EUTURBINE2 & EUDUCTBURNER2

This is the south unit. This was observed running with the turbine and duct burner. The turbine exhaust feeds into the duct burner, and then the combined exhaust goes to SV006.

Fuel usage for both the turbine and duct burner is being recorded on a daily basis.

Pipeline natural gas is being burned, and the sulfur is less than 0.8% by weight as required in the permit.

CO and VOC emission calculations are being kept for the south turbine and duct burner. They are using emission factors for CO and VOC based on the latest testing from September 2008. This emission unit is due for testing in 2014.

NOx emission factor for the ozone season is derived from an average of the CEMS readings during the 2nd and 3rd quarter. The NOx emissions for the 7month period not in the ozone season is derived from the highest 24 hour NOx emissions during the ozone season. A RATA was last performed in April 2013, which they passed.

This is currently subject to the CAIR NOx Budget Permit, which is incorporated into the ROP. The company is submitting the reports to EPA as required by the NOx permit.

EUPACKAGEBOIL

The package boiler has been operated on natural gas only. Fuel usage is being recorded as required. No opacity monitoring has been done since they have not burned oil.

The Annual Capacity Factor (ACF) while burning natural gas was at about 0.9 % for all of 2013 whereas they are allowed up to 10%. Since there was no oil burned, the ACF was 0% for oil use.

Emission calculations are being kept. They are in compliance with the permit limits.

FGCOGEN

Steam production and heat input are being recorded as required. Natural gas is being tested periodically for BTU content. It has ranged between 994 and 1036 BTU/ft³.

The total heat input limit has not been exceeded. As an example, the heat input for November 2013 averaged 254 million BTU per hour compared to a limit of 567.3.

FG-RULE290

There are currently no emissions tracked under this category.

EUFIREPUMPEAST

The East Fire Pump is a compression ignition engine subject to the NSPS in Part 60, Subpart IIII. The Clarke Company that manufactured the unit has supplied a certification form for the emissions from this unit. The tracked run hours never reach 500 hours in a year, so they change the oil annually. They also inspect the air filter and hoses annually. The oil and filter was changed in the unit during January 2014.

FGRICEMACT

The West Fire Pump and the Blackstart are both compression ignition engines (RICE) that are subject to Part 63, Subpart ZZZZ of the MACT standards. A requirement is to change the oil every 500 hours of use or annually. In this case, the tracked hours never reach 500 hours in a year, so they change annually. They also inspect the air filter and hoses annually since they never reach 500 or 1000 hours. The oil and filter was changed in the blackstart during November 2013 and in the west fire pump during January 2014.

OTHER EQUIPMENT

The company now operates two hydropulpers for the recycled corrugated medium and one hydropulper for the recycled magazine stock. They have new systems of centrifugal cleaners and refining equipment for each type of furnish. There are no reported emissions from the pulping and cleaning operations.

There were not any complaints due to the aerated waste water treatment ponds in 2013.

NAME Dale Tinter

DATE Jan 15, 2014 SUPERVISOR MA 1/15/2014